

# PROGRAMS

```

2010 IFB<500THENRETURN
2020 GOTO1200
2049 :
2050 FORY=1TO6
2060 IFB(X,Y)THENNEXT
2070 RETURN
2099 :
2100 DATA0,2,3,0,4,6,1,12,16,1000,0,0,0,0,2,3,0,8,11,120
2110 DATA0,1,1,1,1,1,0,-1,0,0,1,3,1,0,0
2499 :
2500 REM: INITIALISATION
2510 FORX=1TO7:FORY=1TO6:B(X,Y)=0:NEXTY,X
2520 FORX=0TO8:B(X,0)=-1:B(X,7)=-1:NEXT
2530 FORY=0TO7:B(0,Y)=-1:B(8,Y)=-1:NEXT
2540 RESTORE
2550 FORC=1TO2:FORX=0TO9:READE(C,X):NEXTX,C
2560 FORX=0TO3:READX(X):NEXT
2570 FORX=0TO3:READY(X):NEXT
2580 FORX=1TO7:READE(X):NEXT
2590 RETURN
3000 :
3001 :
3002 :
3003 :
3004 : HELPFUL HINTS - DO NOT KEY IN.
3005 : "
3006 : "■■■■ SHIFT CLR : CLEAR SCREEN
3007 : "■■■■ CLR : CURSOR HOME
3008 : "■■■■ CTRL 9 : RVS ON
3009 : "■■■■ CTRL 0 : RVS OFF
3010 : "■■■■ CRSR LEFT
3011 : "■■■■ CRSR RIGHT
3012 : "■■■■ CRSR UP
3013 : "■■■■ CRSR DOWN

■■■■ CTRL 2 : WHITE
■■■■ CTRL 4 : CYAN
■■■■ CTRL 8 : YELLOW
■■■■ COMM 1 : ORANGE
■■■■ COMM 3 : LIGHT RED
■■■■ COMM 5 : GRAY 2
■■■■ COMM 7 : LIGHT BLUE

```

READY.



## Database VZ-200

by Ted Barker

This is an information storage and retrieval program for the VZ-200 with 16k expansion used in conjunction with a suitable cassette recorder and 80 column printer. The program has been adapted from one written for the Commodore VIC 20/64 by John Stilwell of Madison, WI, USA which was published in the February, 1984 issue of the magazine *RUN*.

When you run the program you will be asked to enter a file name. [RETURN] Without entering a file name will result in a default to the file title 'NO NAME'.

Some three seconds later a list of one-letter commands will be displayed. [M] will display a full menu, detailing the meanings of the one-letter commands. (Menu may be called at any time without affecting file entries).

Information is entered into pages, [P], each of which holds 10 line numbers. [E]. The total amount of information which may be filed is determined by the value of 'N' (number of lines) in Line 140. In the listing 'N' has a value of 400 which should allow up to 32 characters of entry per line.

### Commands

'C' (Catalogue) will display the file name together with any lines you have designated as catalogue entries. (See Using The Catalogue). 'P' (Page), will ask you to enter a page number, (1 to 40 in the program listed). Enter a page number and press [RETURN] and the page, together with 10 lines will be displayed, ready for reading or making an entry. 'E' (Entry) asks for a line number; enter the required line number and press [RETURN]; enter the information you

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wish to file and press [RETURN] once more; your entry will then be confirmed on screen. 'I' (Insert) follows the same procedure as Enter. When you enter the desired information, it will be entered at the designated line number. All lines with a higher number will be incremented by one and no information will be lost. 'N' (New File Name) will ask 'Are you sure?'. Entering a new file name will result in the loss of any information stored in the current file. 'S' (Save to Tape) will ask 'Are you sure?'. If your answer is 'Y' just follow the screen prompts. As each entry is saved onto tape, its line number will be displayed at lower left screen. This serves as a check that the saving process is working OK. The word 'COMPLETE' will appear when all of your file is saved to tape.

'L' (Load From Tape) will again ask for confirmation. Load is similar in operation to Save except that you will be asked to enter a file name. During loading, the word 'WAITING' will appear as usual. This will be followed by the word 'FOUND'. The word 'LOADING' does *not* appear. As each item is loaded its line number will be displayed at lower left screen as a check that the loading procedure is going according to plan.

'H' (Hard Copy) will allow you to pro-

duce a print-out of your file. The file name will be enhanced, followed by the remainder of your file in unenhanced type. You will have the option of printing the entire file or of specifying a starting and ending line number.

'D' (Delete) follows the same procedure as Enter and Insert. A line number entered after the 'D' command will result in that line being deleted from the file. Higher line numbers will be decreased by one, leaving no gaps in your file. No information will be lost, except for the line you deleted. 'A' (Alphabetize) allows entries to be placed in order after they have been entered. You may place the entire file in alphabetical order, or specify starting and ending line numbers. (Note remarks in Using The Catalogue.) 'M' (Menu) displays menu on screen in case you forget what the single letter commands mean.

## Using the catalogue

If you wish to split your files into separate categories you may display category headings in the file catalogue. To do this, the entry is made in the usual way but with an inverse 'C' preceding the entry. Line 170 in the program reads this character, ASC(195), and places those

entries in the catalogue, together with the page number on which they appear.

As these entries still appear in their correct position in the body of the file, it may be an advantage to enter the whole of that entry in inverse print, thus making the category headings stand out when going through the file. When using the Alphabetize routine on a file containing inverse 'C' entries, it is essential that the line number after the inverse 'C' entry is used as a starting line and that the ending number should not be greater than the entry containing the next inverse 'C'. If this rule is not observed the inverse 'C' entries will be alphabetized with the rest of the file, thus destroying its usefulness as a category heading.

If you enter a command letter by mistake, just enter another command instead of a line number. Omit all line numbers below 100 as this will allow a little more memory available for your database.

When you have completed all your entries, make one more entry on the next line. This entry should be 'END'. If you do this the alphabetize and catalogue routines will run much more quickly.

[illegible]



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33 PRINT@130,"TO 40 PAGES, EACH PAGE"
34 PRINT@162,"CONTAINING 10 LINES."
35 PRINT@226,"YOU MAY ENTER,INSERT,DELETE"
36 PRINT@258,"OR OVERWRITE INFORMATION-"
37 PRINT@290,"ALPHABETIZE OR PRINT ALL"
38 PRINT@322,"OR PART OF YOUR FILES-"
39 PRINT@354,"WHICH CAN THEN BE SAVED"
40 PRINT@386,"AND/OR RETRIEVED FROM TAPE."
41 PRINT@450,"XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
42 K$=INKEY$ I$=INKEY$ IF I$<>" " THEN 42
43 CLS PRINT@8,"XXXXXXXXXXXX"
44 PRINT@34,"YOU WILL REQUIRE THE 16K"
45 PRINT@66,"EXPANSION WITH YOUR VZ-200."
46 PRINT@98,"A CASSETTE RECORDER AND"
47 PRINT@130,"SUITABLE PRINTER."
48 PRINT@194,"WHEN RETRIEVING A FILE"
49 PRINT@226,"FROM TAPE, THE WORD"
50 PRINT@258,"XXXXXXXXXX WILL NOT APPEAR."
51 PRINT@290,"YOU WILL SEE XXXXXXXXXXXX"
52 PRINT@322,"FOLLOWED BY XXXXXXXX"
53 PRINT@354,"THE NUMBER OF EACH FILE"
54 PRINT@386,"ENTRY WILL BE DISPLAYED"
55 PRINT@418,"AS EACH ENTRY IS LOADED."
56 PRINT@451,"XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
57 K$=INKEY$ I$=INKEY$ IF I$<>" " THEN 57
58 PRINT@482,"XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
59 K$=INKEY$ I$=INKEY$ IF I$<>" " THEN 51
60 CLS PRINT@66,"WHEN ENTERING THIS"
61 PRINT@98,"PROGRAMME, YOU WILL HAVE MORE"
62 PRINT@130,"MEMORY FOR YOUR FILES IF"
63 PRINT@162,"YOU OMIT LINES BELOW 100."
64 PRINT@290,"GOOD LUCK!"
65 PRINT@451,"XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
66 K$=INKEY$ I$=INKEY$ IF I$<>" " THEN 69
100 CLS PRINT@200,PEEK(30897)+256*PEEK(30898):CLEAR 12000
110 CLS PRINT"FILE NAME.":INPUT T$ IF (T$="") THEN T$="END NAME"
120 PRINT@134,"XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
130 T$=LEFT$(T$,14)
140 N=400 P=1 X=N+1 Y=10 DIMS$(N) R$="LINE NUMBER"
145 GOSUB 1110 GOTO 200
150 K=0
160 CLS PRINT@7,"XXXXXXXXXXXXXXXXXXXX":7*PRINT PRINT"PAGE:"
165 FOR J=0 TO N
170 IFASC(S$(J))=195,PRINTINT(J/10+1);RIGHT$(S$(J),LEN(S$(J))-1)
180 IF$(J)="END" THEN 200
190 NEXTJ
200 GOSUB 450 IF A$="A" THEN GOTO 200
210 IF A$="C" THEN GOTO 150
220 IF A$="P" THEN GOTO 340
230 IF A$="E" THEN GOTO 410
240 IF A$="I" THEN GOTO 440
250 IF A$="N" THEN GOTO 520
260 IF A$="S" THEN GOTO 540

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270 IF A$="L" THEN GOTO 680
280 IF A$="H" THEN GOTO 950
290 IF A$="D" THEN GOTO 730
300 IF A$="A" THEN GOTO 770
310 IF A$="M" THEN GOTO 560
320 IF J<N+1 THEN K=J:GOTO 160
330 GOTO 150
340 PRINT@384,"ENTER PAGE NUMBER":INPUT A$:P=VAL(A$)
350 CLS:PRINT"PAGE "P" "T$:PRINT
360 FORI=0TO9:L=(P-1)*10+I:PRINTL:S$(I)=NEXT
370 GOSUB 490
380 IF A<>12 THEN210
390 P=P+1:IF P>X THEN P=1
400 GOTO 350
410 A$="-1":PRINT@384,"ENTER "R$:INPUT A$:J=VAL(A$)
420 GOSUB 500:IF A<>0 THEN GOTO 210
430 INPUT S$(J):GOTO 350
440 A$="-1":PRINT@384,"INSERT "R$:INPUT A$:J=VAL(A$)
450 GOSUB 500:IF A<>0 THEN GOTO 210
460 INPUT D$:CLS:IF R=N THEN GOTO 350
470 GOSUB 1160:FOR I=KK TO J+1 STEP-1:S$(I)=S$(I-1):NEXT
480 S$(J)=D$:GOTO 350
490 E$="0123456789ABCDEF":PRINT@490,E$:GOSUB 890
500 FOR I=1 TO 13:IF MID$(E$,I*2-1)=A$ THEN A=I:I=13
510 RETURN
520 CLS:GOSUB 920:IF A$<>"Y" THEN GOTO 150
530 PRINT@195,"NEW FILE NAME.":INPUT T$
540 PRINT@259,"1=CALL PAGE:2=ENTER:3=INSERT:4=NEW FILE:5=SAVE ON TAPE:6=LOAD FROM TAPE:7=HARD COPY ON PRINTER:8=DELETE:9=ALPHABETIZE":GOSUB 490
550 GOSUB 1110:GOTO 150
560 CLS:PRINT@12,"1=110":PRINT@68,"DATALOGUE"
570 PRINT" 12 CALL PAGE":PRINT" 13 ENTER":PRINT" 14 INSERT"
580 PRINT" 15 NEW FILE"
590 PRINT" 16 SAVE ON TAPE":PRINT" 17 LOAD FROM TAPE"
600 PRINT" 18 HARD COPY ON PRINTER"
610 PRINT" 19 DELETE":PRINT" 20 ALPHABETIZE":GOSUB 490
620 GOSUB 890:GOTO 210
630 CLS:PRINT@41,"12345678901234"
640 GOSUB 920:IF A$<>"Y" THEN GOTO 150
650 CLS:PRINT@132,"PREPARE CASSETTE":PRINT
660 INPUT" THEN PRESS <RETURN>":X:GOTO 1190
670 CLS:PRINT@35,"12345678901234"
680 GOSUB 920:IF A$<>"Y" THEN GOTO 150
690 INPUT" FILE NAME":T$
700 CLS:PRINT@132,"PREPARE CASSETTE"
710 INPUT" THEN PRESS <RETURN>":X:GOTO 1320
720 PRINT@384,"DELETE "R$:INPUT A$:J=VAL(A$):GOSUB 500
730 FOR I=J TO N-1:IF S$(I)="-" AND S$(I+1)="-" THEN I=N-1
740 S$(I)=S$(I+1)
750 NEXT:S$(N)="-":GOTO 350
760 CLS:PRINT@40,"12345678901234"
775 PRINT@104,"ENTIRE FILE":INPUT Z$:IF Z$="N" THEN GOTO 1500
780 GOSUB 1120:U=VAL(A$):IF U<0 OR U>N THEN GOTO 200
790 GOSUB 1130:K=0:FOR I=U TO KK
800 NN=I-1:I=KK

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810 NEXT I:IF K=1 THEN GOTO 830
820 NN=KK
830 I=0
840 J=0:IF I=NN-J THEN GOTO 850
850 IF J=NN-I THEN GOTO 820
860 IF S$(J)>S$(J+1) THEN TP$=S$(J):S$(J)=S$(J+1):S$(J+1)=TP$
870 J=J+1:GOTO 850
880 I=I+1:GOTO 840
890 K$=INKEY$:A$=INKEY$:IF A$="" THEN GOTO 890
900 RETURN
910 PRINT@456,,I:RETURN
920 PRINT@131,"ARE YOU SURE (Y/N)";
930 INPUT A$
940 RETURN
950 CLS:PRINT@41,"[REDACTED]"
960 PRINT@105,"ENTIRE FILE":INPUT X$:IF X$="Y" THEN F=0:N=N
970 GOSUB 1120:F=VAL(A$):K=F:IF F<0 OR F>N THEN GOTO 950
980 PRINT@232,"ENDING R$":INPUT A$:M=VAL(A$)
1010 A$="" :FOR I=1 TO INT(40-LEN(T$))/2:G$=CHR$(8):F$=CHR$(15)
1020 A$=A$+" " :NEXT I:LPRINT CHR$(14)A$+T$+F$,CHR$(10),CHR$(10)
1030 LL=4:FOR I=K TO M
1040 IF S$(I)<>"-" THEN LPRINTS$(I)CHR$(10):LL=LL+2
1050 GOTO 1090
1060 A$="" :FOR KK=7 TO LEN(S$(I))*6:A$=A$+CHR$(255):NEXT KK
1070 LPRINT "          "+G$+A$:LPRINTF$+"          "+S$(I)+G$
1080 LPRINTF$+"          "+G$+A$+F$,CHR$(10):LL=LL+4
1090 IF LL>59 THEN FOR NL=LL TO 72:LPRINTCHR$(10):NEXT I:LPRINT""
1100 LL=3:NEXT I:GOTO 150
1110 FOR J=0 TO N:S$(J)="-":NEXT J:RETURN
1120 PRINT@168,"STARTING R$":INPUT A$:RETURN
1130 FOR I=N TO 0 STEP-1:IF S$(I)<>"-" THEN KK=I:I=0:GOTO 1150
1140 KK=I
1150 NEXT I:RETURN
1160 FOR J=J+1 TO N:IF S$(I)="-" THEN KK=I:I=N:GOTO 1150
1170 KK=I
1180 NEXT I:RETURN
1190 CLS:PRINT@196,"[REDACTED]"
1200 FOR I=N TO 0 STEP-1:K=I:IF S$(I)<>"-" THEN I=0
1210 NEXT I:K=K+1
1220 PRINT#"VZ-DATA",K
1230 FOR I=0 TO K
1240 PRINT#"DATA",S$(I)
1250 GOSUB 910
1260 NEXT I
1270 CLS:PRINT@194,"[REDACTED]"
1280 PRINT@260,"PRESS <F> FOR FILE."
1290 K$=INKEY$
1300 I$=INKEY$:IF I$="" THEN GOTO 1300
1310 IF I$="F" THEN GOTO 350
1320 CLS
1330 PRINT@196,"[REDACTED]"
1340 INPUT#"VZ-DATA",K
1350 FOR I=0 TO K
1360 INPUT#"DATA",S$(I)

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1370 GOSUB 910
1380 NEXT
1390 CLS:PRINT@194,"[REDACTED]"
1400 PRINT@260,"PRESS <F> FOR FILE."
1410 K#=INKEY$
1420 I#=INKEY$:IF I#="" THEN GOTO 1420
1430 IF I#"F" THEN GOTO 350
1500 PRINT@168,"STARTING "R$":INPUT A$
1510 PRINT@232,"ENDING   "R$":INPUT B$
1520 U=VAL(A$):KK=VAL(B$)
1525 FORI=KKT00STEP-1:IFS$(I)<>"-"THENKK=I:I=0:GOTO 1527
1526 KK=I
1527 NEXT
1530 K=0:FOR I=U TO KK
1540 NN=I-1:I=KK
1550 NEXT I:IF K=1 THEN GOTO 1570
1560 NN=KK
1570 I=0
1580 J=U:IF I=NN-U THEN GOTO 350
1590 IF J=NN-I THEN GOTO 1620
1600 IF S$(J)>S$(J+1) THEN TP$=S$(J):S$(J)=S$(J+1):S$(J+1)=TP$
1610 J=J+1:GOTO 1590
1620 I=I+1:GOTO 1580

```



# GrafX Editor

by Nick Cooper

GrafX Editor lets you create pictures on your color computer's screen. The program uses Extended Color Basic and a minimum of 32k RAM. It will not work with 16k because it PCLEARs 8 graphic pages.

When you first RUN the program, the menu will appear with 14 options. These are: circle, color, line, line box, line box fill, paint, Pcls, Pmode, preset, Pset, screen, see picture, save screen to tape,

and load screen from tape. The first eleven are extended color Basic commands and function in the same way.

You should first select option **8** (Pmode). This will get you into the desired graphic mode. Next you should choose option **11** (Screen). This will get you into your desired graphic screen. Finally, select option **7** (Pcls). This will prepare you for your next option.

If you wish to stop work on your pic-

ture and continue later on, you can save the screen on tape. When you wish to load it back in, first of all, you have to set up the graphic screen. If you want to load the screen back in without using the Grafx Editor, use this program:

```
10 PMODE 4,1:PCLS:SCREEN 1,1
20 CLOADM
30 GOTO 30
```

```

10  '      ***GRAFX EDITOR***
20  '      *
30  '      * BY NICK COOPER *
40  '      *
50  '      *
60  '      *
70  '      *
80  '      *      COPYRIGHT      *
90  '      *****
100 GOTO1150
110 CLS:PRINT@6,"*** GRAFX EDITOR ***"
120 PRINT@35,"<1>  CIRCLE"
130 PRINT@67,"<2>  COLOR"

```